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10/706,726	11/12/2003	Peter Streuer	054821-0877	7254

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EXAMINER	
LEWIS, BEN	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
11/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/706,726	STREUER, PETER	
	Examiner	Art Unit	
	Ben Lewis	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-10 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-10 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. The Applicant's amendment filed on September 4th, 2007 was received. Claims 1,4, 8 and 12 were amended. Claim 11 was cancelled.

2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action (issued on May 3rd, 2007).

Claim Rejections - 35 USC § 103

3. Claims 1, 2 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Krabatsch et al. European Patent No. (DE 33 30 823 A1)

With respect to claims 1 and 2, Krabatsch et al. discloses a plug for an accumulator "battery". The plug has degassing openings **9** and **19** and **18** (See Figure).

Krabatsch et al. teach an upper part **21** with opening **18** to the outside and a lower part **7** (See Figure). Opening **18** is also connected to the splash basket **7** (See Figure).

Krabatsch et al. teaches an acid cage **7** "splash basket" having an inner diameter that increases from the free end to the upper end of the acid cage and slots continuing as far as the free end of the splash basket (See Figure) (See page 2 line 1-10).

With respect to the shape of the slots, Krabatsch et al. do not specifically teach wherein each of the slots has a width that broadens with increasing distance from the free end of the splash basket. Unless applicant shows criticality for the claimed features, changes in size and shape is obvious absent a showing of unexpected results.

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

It is noted that applicant's slot widths and basket shape appear to be similar to, if not identical to that shown in the Figure in DE 3330823.

With respect to slots including a free end extending toward the free end of the splash basket, Krabatsch et al. teach that feature **10** of the plug is an opening.

Since, there is no showing of unexpected results or showing of criticality of the end of Applicant's slots being free as claimed by the Applicant as opposed to the slots of Krabatsch et al. having lower edge support **24** at the end of the slots of Krabatsch et al., the plug of Applicant is obvious variant of the plug of Krabatsch et al.

With respect to claim 10, Krabatsch et al. teach that annular grooves **4** and **6** are indented, into which O-rings **5** are inserted, in order to seal part **21** with the inner wall of the cover **1** (See Figure) (See Page 2 lines 8).

4. Claims 4-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krabatsch et al. European Patent No. (DE 33 30 823 A1) in view of Spaziante et al. (U.S. Patent No. 4,201,647).

With respect to claims 4 and 12, With respect to claims 1 and 2, Krabatsch et al. discloses a plug for an accumulator "battery". The plug has degassing openings **9** and **19** and **18** (See Figure).

Krabatsch et al. teach an upper part **21** with opening **18** to the outside and a lower part **7** (See Figure). Opening **18** is also connected to the splash basket **7** (See Figure).

Krabatsch et al. teaches an acid cage **7** "splash basket" having an inner diameter that increases from the free end to the upper end of the acid cage and slots continuing as far as the free end of the splash basket (See Figure) (See page 2 line 1-10).

With respect to the shape of the slots, Krabatsch et al. do not specifically teach wherein each of the slots has a width that broadens with increasing distance from the free end of the splash basket. Unless applicant shows criticality for the claimed features, changes in size and shape is obvious absent a showing of unexpected results.

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice

which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

It is noted that applicant's slot widths and basket shape appear to be similar to, if not identical to that shown in the Figure in DE 3330823.

With respect to slots including a free end extending toward the free end of the splash basket, Krabatsch et al. teach that feature **10** of the plug is an opening.

Since, there is no showing of unexpected results or showing of criticality of the end of Applicant's slots being free as claimed by the Applicant as opposed to the slots of Krabatsch et al. having lower edge support **24** at the end of the slots of Krabatsch et al., the plug of Applicant is obvious variant of the plug of Krabatsch et al.

Krabatsch et al. do not disclose at least one of as state of charge indicator and acid level indicator attached to the upper part of the sealing plug and passing through the lower part of the sealing plug cavity.

However, Spaziante et al. discloses measuring electrodes and process (title) wherein, considering the discharging voltage characteristics of a lead battery, it is evident that the voltage determination cannot give a reliable indication of the charge condition of the battery since even near full discharge the voltage is almost the same as that of a fully charged battery. A reliable method to assess the charge condition is to measure the acid concentration (Col 2 lines 4-20). Spaziante et al also teach that in FIG. 3, the assembly is comprised of a measuring electrode M, a counter-electrode C for activating the measuring electrode M by anodic polarization of the same in an acidic or basic solution and a reference electrode R (Col 6 lines 5-16). The measuring

assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65) (See Fig. 3). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the battery level/charge indicator of Spaziante et al into the battery plug of Krabatsch et al. because Spaziante et al teach that the measuring assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65).

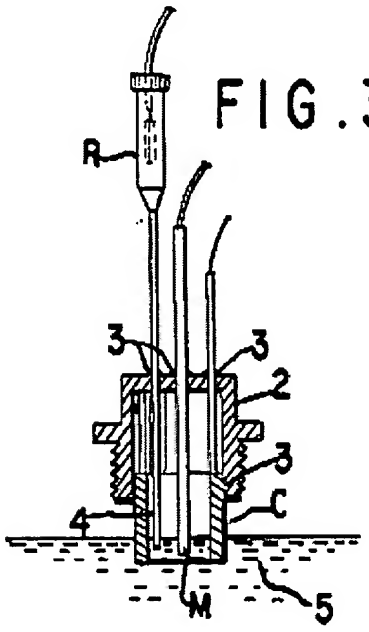

FIG. 3

With respect to claim 5, Krabatsch et al. as modified by Spaziante et al. discloses a plug for an accumulator "battery" (See Figure). Krabatsch et al. is silent as

to the roughness of the splash guards. However, it is the position of the examiner that such properties are inherent, given that the materials of construction of the plug of Thomas et al. have an inherent roughness. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference. In re Robertson, 49 USPQ2d 1949 (1999).

With respect to claims 6 and 7, Krabatsch et al. as modified by Spaziante et al. discloses a plug for an accumulator "battery" (See Figure. Spaziante et al also teach that in FIG. 3, the assembly is comprised of a measuring electrode M, a counter-electrode C for activating the measuring electrode M by anodic polarization of the same in an acidic or basic solution and a reference electrode R (Col 6 lines 5-16). The measuring assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65) (See Fig. 3).

The instant specification recites the state of charge indicator and/or electrolyte level indicator may also have a roughened surface (Paragraph 0019). Thomas et al and Spaziante et al are silent as to the roughness of the charge indicator and/or electrolyte level indicator. However, it is the position of the examiner that such properties are inherent, given that the materials of construction of the charge indicator and/or electrolyte level indicator of Thomas et al. and Spaziante et al have an inherent roughness. A reference which is silent about a claimed invention's features is inherently

anticipatory if the missing feature is necessarily present in that which is described in the reference. In re Robertson, 49 USPQ2d 1949 (1999).

5. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krabatsch et al. European Patent No. (DE 33 30 823 A1) in view of Richter et al. (U.S. Patent No. 6,733,921 B2).

With respect to claim 8, Krabatsch et al. discloses a plug for an accumulator "battery". The plug has degassing openings **9** and **19** and **18** (See Figure).

Krabatsch et al. teach an upper part **21** with opening **18** to the outside and a lower part **7** (See Figure). Opening **18** is also connected to the splash basket **7** (See Figure).

Krabatsch et al. teaches an acid cage **7** "splash basket" having an inner diameter that increases from the free end to the upper end of the acid cage and slots continuing as far as the free end of the splash basket (See Figure) (See page 2 line 1-10).

With respect to the shape of the slots, Krabatsch et al. do not specifically teach wherein each of the slots has a width that broadens with increasing distance from the free end of the splash basket. Unless applicant shows criticality for the claimed features, changes in size and shape is obvious absent a showing of unexpected results.

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of

choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

It is noted that applicant's slot widths and basket shape appear to be similar to, if not identical to that shown in the Figure in DE 3330823.

With respect to slots including a free end extending toward the free end of the splash basket, Krabatsch et al. teach that feature **10** of the plug is an opening.

Since, there is no showing of unexpected results or showing of criticality of the end of Applicant's slots being free as claimed by the Applicant as opposed to the slots of Krabatsch et al. having lower edge support **24** at the end of the slots of Krabatsch et al., the plug of Applicant is obvious variant of the plug of Krabatsch et al.

Krabatsch et al. do not specifically teach that the sealing plug is formed from an electrically conductive plastic. However, Richter et al. disclose a rechargeable electric battery (title) wherein a rechargeable electric battery including a plate block arranged in a plastic block box, positive and negative electrodes located in the box and electrically isolated by separators and conductively connected by sulfuric acid electrolyte, a cover for the box which has closure plugs and/or acid state indicators fitted in a gas-tight manner to openings therein, wherein at least a portion of an inner surface of the battery is electrically conductive or is provided with an electrically conductive layer, beginning in an area of a sealing seat of the closure plug or of the acid state indicator, and is electrically conductively connected to the electrolyte (Col 2 lines 35-47). Richter et al. also teach that he electrical connection between closure plug and acid is provided by

immersing the lower part of the plug into the electrolyte or via parts of the rechargeable battery which provide an electrical connection to the acid, or via an active capillary wick which effects the connection to the electrolyte (Col 4 lines 10-20).

With respect to the sealing plug formed from electrically conductive plastic, Richter et al. teach that the plug can be composed of, for example, corrosion resistant metal, conductive plastic, carbon (graphite, pyrolytic carbon), plastic doped with carbon powder or carbon fibers or conductive ceramic material (Col 3 lines 60-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the conductive plastic material of Richter et al. as sealing plug material in Krabatsch et al because conductive plastic material is resistant to the corrosive internal environment of batteries.

With respect to claim 9, Krabatsch et al teach that the acid level in the accumulator is at **8** which is higher than the bottom of the splash basket **7** (See page 2 line 3) (See Figure).

Response to Arguments

6. Applicant's arguments filed on September 4th, 2007 have been fully considered but they are not persuasive.

Applicant's principal arguments are

(a) None of the cited references, whether taken alone or in proper combination, teaches or suggests a "splash basket" that includes a "plurality of plates defining slots.., wherein each of the plurality of plates includes a free end extending toward the free end of the splash basket," as recited in each of amended Claims 1, 4, 8, and 12. Krabatsch et al. shows a member 11 having circumferential slots that are bounded at one end by another member 24, which is shown in the Figure to be a ring-like member. In contrast, the rejected claims each recites "a plurality of plates [each including] a free end extending toward the free end of the splash basket."

In response to Applicant's arguments, please consider the following comments.

(a) With respect to slots including a free end extending toward the free end of the splash basket, Krabatsch et al. teach that feature **10** of the plug is an opening.

Since, there is no showing of unexpected results or showing of criticality of the end of Applicant's slots being free as claimed by the Applicant as opposed to the slots of Krabatsch et al. having lower edge support **24** at the end of the slots of Krabatsch et al., the plug of Applicant is obvious variant of the plug of Krabatsch et al.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ben Lewis whose telephone number is 571-272-6481. The examiner can normally be reached on 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ben Lewis

PATRICK JOSEPH RYAN
SUPERVISORY PATENT EXAMINER

Patent Examiner
Art Unit 1745